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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
KOSOWSKI, ALEXANDER J	

ART UNIT	PAPER NUMBER
2125	

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/816,367	FARCHMIN ET AL.	
	Examiner	Art Unit	
	Alexander J. Kosowski	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41 and 49-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41 and 49-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/31/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1) Claims 1-41 and 49-54 are presented for examination in light of the response filed 8/4/06. This is a second non-final rejection. In addition, the new examiner for this application is Alexander Kosowski.

Claim Objections

2) Claims 20 and 33 are objected to because of the following informalities:

Referring to claim 20, line 1, the word "f" should read --of--. Appropriate correction is required.

Referring to claim 33, line 3, the word "f" should read --of--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4) Claims 1-2, 14-16, 20-21, 23-28, 35-37 and 41 are rejected under 35 U.S.C. 102(e) as being unpatentable by Monette et al (U.S. Pat 7,069,100).

Referring to claim 1, Monette teaches a method comprising providing an information device on the moveable item (col. 6 lines 30-49); ascertaining the location of the information device (col. 15 lines 37-56); and controlling at least a first of the resources as a function of the location of the information device (col. 14 lines 1-12, whereby production machines may

perform actions such as activation in response to a reader detecting the location of a tagged material).

Referring to claim 2, Monette teaches that the moveable item is the product (col. 6 lines 20-25).

Referring to claims 14-15, Monette teaches that the resources include at least a first resource having a location known to the controller and controlled by the controller to perform a process on the work product when the information device is in a first juxtaposition with respect to the first resource, the step of controlling including the step of initiating the first resource process when the information device is in the first juxtaposition (col. 14 lines 1-12, whereby production machines may perform actions such as activation in response to a reader detecting the location of a tagged material), including the step of determining the location of the first resource (col. 15 lines 37-56).

Referring to claim 16, Monette teaches controlling resources integrated to perform the process on multiple similar work products within the environment, the step of providing an information device on the work product including providing an information device on each of the work products and at the same locations on each of the work products (col. 5 lines 1-7).

Referring to claim 20, Monette teaches that the step of providing an information device includes providing at least first and second information devices on the work product and wherein the step of ascertaining the location includes ascertaining the location of at least one of the first and second information devices (col. 6 lines 20-49, whereby multiple transponders may be utilized).

Referring to claim 21, Monette teaches that the step of providing an information device includes providing a transmitter, the step of ascertaining the location including providing at least one sensor in the environment for receiving signals transmitted by the transmitter, receiving transmitted signals and using the transmitted signals to ascertain the location (col. 6 lines 30-67, whereby readers receive information on location from transponders).

Referring to claims 23-25, Monette teaches that the information device transmits a signal identifying the work product (col. 12 lines 9-19), that the resources include at least a first resource having a location known and controlled by the controller to perform a process on the work product when the information device is in a first juxtaposition with respect to the first resource, the step of controlling including the step of initiating the first resource process when the information device is in the first juxtaposition (col. 14 lines 1-11), and the step of determining the location of the first resource (col. 13 lines 3-15).

Referring to claims 26-28, Monette teaches the step of storing process data on the information device from which a process to be performed by at least the first resource can be identified (col. 11 lines 24-46), the step of identifying the process data and using the process data to identify the process to be performed, the step of controlling as a function of location including controlling as a function of both location and the identified process (col. 12 lines 9-19 and col. 14 lines 1-11), and the step of storing correlated product identifiers and processes to be performed on the products in a database, the step of storing process data including the step of storing a product identifier, the step of identifying the process data and using the process data including identifying the product identifier, accessing the database and identifying the correlated process as the process to be performed (col. 13 lines 1-35).

Referring to claims 35-37, Monette teaches providing information devices on other work products within the environment and ascertaining the locations of the other work products within the environment, the step of controlling the first resource further including the step of controlling the first resource as a function of the locations of at least a sub-set of the work products (col. 14 lines 1-11, whereby multiple interactions between multiple products are possible), that the information device is reusable (col. 6 lines 30-49, whereby transponders are re-usable), and that the resources include machines for performing an automated industrial process (col. 1 lines 5-8).

Referring to claim 41, Monette teaches that the information device may be non-reusable (col. 6 lines 30-49, whereby examiner notes RFID tags may be disposed of after use).

5) Claims 49-50 and 54 are rejected under 35 U.S.C. 102(e) as being unpatentable over Beaulieu et al (U.S. Pat 6,993,405).

Referring to claim 49, Beaulieu teaches a method comprising providing environment information within the environment from which information device location can be ascertained (col. 1 lines 40-60, whereby environment parameters are sensed and date/time stamped); providing an information device on each of the products (col. 4 lines 36-54 and Figure 5); at least periodically obtaining environment information via each of the information devices (col. 6 lines 6-25); and using the environment information to determine the locations of the information devices within the environment (col. 6 lines 34-50, whereby date/time stamped environment parameters are an input used to determine location).

Referring to claim 50, Beaulieu teaches that the step of providing an information device on each of the products includes the step of providing at least a receiver on each of the products

(col. 4 lines 36-54), the step of providing environment information includes providing at least one transmitter within the environment for transmitting signals within the environment (col. 6 lines 6-26, whereby process conditions are transmitted to the workpiece and detected) and the step of obtaining information including obtaining at least a sub-set of the transmitted signals within the environment (col. 1 lines 49-60).

Referring to claim 54, Beaulieu teaches that the step of providing the information device further includes the steps of providing a separate transmitter linked to each of the receivers, the step of using the environment information includes providing a control processor linked to an environment receiver within the environment, transmitting the environment information to the control processor via the environment receiver and using the control processor to determine the locations of the products (col. 4 lines 36-54 and col. 6 lines 34-52).

Claim Rejections - 35 USC § 103

6) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7) Claims 3-10, 22, 32, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monette, further in view of Mountz (U.S. Pat 6,895,301).

Referring to claims 3-7, Monette teaches the above. However, Monette does not explicitly teach providing a sensor on the product, obtaining information from the environment via the sensor, providing a processor linked to the sensor and using the processor to determine

the location based on the obtained information, providing at least one stationary transmitter within the environment and transmitting signals from the transmitter within the environment, obtaining at least a sub-set of the signals transmitted by the transmitter, performing at least one of a triangulation method, providing a transmitter linked to the processor, nor wirelessly transmitting the device location from the transmitter to the controller.

Mountz teaches a work product that is moveable throughout an environment (Abstract) whereby a sensor is on the product and information is obtained from the environment via the sensor (col. 3 lines 8-48 and col. 5 lines 1-17, whereby GPS, RF and other sensors are utilized), providing a processor linked to the sensor and using the processor to determine the location based on the obtained information (col. 3 lines 25-34 and col. 5 lines 1-17, whereby location is determined utilizing microprocessor), providing at least one stationary transmitter within the environment and transmitting signals from the transmitter within the environment and obtaining at least a sub-set of the signals transmitted by the transmitter (col. 5 lines 18-36, whereby GPS utilizes a stationary transmitter), performing at least one of a triangulation method (col. 5 lines 25-30), providing a transmitter linked to the processor and wirelessly transmitting the device location from the transmitter to the controller (col. 5 lines 37-64, whereby position and other data may be communicated).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the limitations shown above in the invention taught by Monette since this would allow work products to navigate a factory autonomously using information obtained on-board information (Mountz, col. 3 lines 35-41), which would help provide an order fulfillment

system that is simple to install, operate, and maintain, and that would reduce operating costs (Mountz, col. 1 lines 65-67).

Referring to claims 8-9, Monette teaches that the resources include at least a first resource having a location known to the controller and controlled by the controller to perform a process on the work product when the information device is in a first juxtaposition with respect to the first resource, the step of controlling including the step of initiating the first resource process when the information device is in the first juxtaposition (col. 14 lines 1-12, whereby production machines may perform actions such as activation in response to a reader detecting the location of a tagged material), including the step of determining the location of the first resource (col. 15 lines 37-56).

Referring to claim 10, Monette teaches the above. However, Monette does not explicitly teach providing a set of stationary positioning labels at various locations within the environment, each label indicating the position thereof, the step of obtaining information including the step of, when the product is proximate one of the labels, obtaining the location information from the proximate label.

Mountz teaches utilizing multiple sensors, including magnetic sensors and RF transceivers, to route a work product through an environment (col. 5 lines 1-16 and 37-64).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize stationary position labels and to allow a product proximate those labels to obtain location information in the method taught above since this would allow work products to navigate a factory autonomously using information obtained on-board information (Mountz, col.

3 lines 35-41), which would help provide an order fulfillment system that is simple to install, operate, and maintain, and that would reduce operating costs (Mountz, col. 1 lines 65-67).

Referring to claim 22, see rejection of claims 3-7 above.

Referring to claim 32, Monette teaches providing a set of stationary information device sensors at various locations within the environment, each sensor capable of sensing the presence of the information device, the step of obtaining information including the step of, when the product is proximate one of the sensors, sensing the presence of the information device (col. 14 lines 12-19).

Referring to claim 39, see rejection of claims 3-7 above.

8) Claims 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaulieu, further in view of Mountz (U.S. Pat 6,895,301).

Referring to claims 51-52, Beaulieu teaches the above. However, Beaulieu does not explicitly teach providing a processor on each of the products that is linked to the receiver, causing the processor to determine the product location as a function of the obtained signals, nor determining the product location by performing a triangulation method.

Mountz teaches a work product that is moveable throughout an environment (Abstract) whereby provided is a processor linked to the sensor and using the processor to determine the location based on the obtained information (col. 3 lines 25-34 and col. 5 lines 1-17, whereby location is determined utilizing microprocessor), and performing at least one of a triangulation method (col. 5 lines 25-30).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the limitations shown above in the invention taught by Beaulieu since this would allow work products to navigate a factory autonomously using information obtained on-board information (Mountz, col. 3 lines 35-41), which would help provide an order fulfillment system that is simple to install, operate, and maintain, and that would reduce operating costs (Mountz, col. 1 lines 65-67).

Referring to claim 53, see rejection of claim 10 above.

9) Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monette, further in view of Maske et al (U.S. Pat 7,010,379).

Referring to claims 17-19, Monette teaches the above. However, Monette does not explicitly teach ascertaining the orientation of the work product and wherein the step of controlling includes controlling the resources as a function of both the location of the information device and the orientation of the work product, wherein the information device is a first information device and wherein the step of ascertaining the orientation includes the step of providing at least a second information device on the work product and ascertaining at least one of the location of the second device and the relative juxtaposition of the second device to the first device, and wherein the step of determining the orientation includes providing at least a third information device on the work product and ascertaining at least one of the location of the third device and the relative juxtaposition of the third device to at least one of the first and second devices.

Maske teaches a product location and orientation verification system (Abstract), which utilizes multiple identifiers on a product and multiple readers in a system to determine the orientation of a product based on multiple locations before beginning processing (col. 1 lines 45-65 and col. 2 lines 46-51 and col. 3 lines 1-6).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the limitations above in the invention taught by Monette since this allows confirmation that the correct part and configuration has occurred prior to processing (Maske, col. 1 lines 32-35) and would allow for alerts to be generated if a part does not match the desired orientation (Maske, col. 2 lines 1-5).

10) Claims 33-34, 40, 11-13 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monette, further in view of Mountz, further in view of Kinoshita et al (U.S. PGPUB 2002/0193900).

Referring to claims 33-34 and 40, Monette and Mountz teach the above. However, they do not explicitly teach that the step of ascertaining further includes, when the product is between two of the stationary sensors, estimating the location of the product from the location of at least the sensor that the product was most recently proximate, nor that the step of estimating also includes estimating as a function of the velocity and acceleration at which the product is moving within the environment and the time since the product was proximate the sensor.

Kinoshita teaches tracking objects and determining velocity and acceleration based on time and location utilizing types of sensors (Paragraphs 0009-0010).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the limitations above in the invention taught by Monette and Mountz since it is possible to calculate such factors as position and velocity when given information including position information supplied from a detecting device (Kinoshita, Paragraph 0002).

Referring to claims 11-13 and 38, see rejection of claims 33-34 and 40 above.

11) Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monette, further in view of Marcum (U.S. Pat 6,314,337).

Referring to claims 29-31, Monette teaches the above. However, Monette does not explicitly teach that the identified process specifies at least one component to be added to the product by the first resource, the method further including the steps of, confirming that a component to be added to the product is at least one instance of the specified component and then performing the identified process, the steps of providing an information device on the component to be added to the product and storing a component identifier in the information device on the component, the step of confirming including obtaining the component identifier from the information device on the component and comparing the component identifier to the specified component and, when the component identifier matches the specified component, performing the identified process, nor the step of identifying the location of component to be added to the product.

Marcum teaches a product tracking and matching system which specifies components to be matched for specific processes, confirms the components found are correct and identifies locations of components (col. 3 through col. 4).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the limitations above in the invention taught by Monette since automatically scanning and matching multiple components reduces the number of operators required in a system and reduce assembly costs (Marcum, col. 2 lines 54-64 and col. 5 lines 21-25).

Conclusion

12) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Barritz (U.S. PGPUB 2002/0008621) – teaches a method for determining location of assets.

Plocher (U.S. Pat 6,011,487) – teaches a system for locating wireless devices.

Ghaffari (U.S. Pat 6,804,578) – teaches asset visibility system.

Francis (U.S. Pat 6,600,418) – teaches object tracking system.

13) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander J Kosowski whose telephone number is 571-272-3744. The examiner can normally be reached on Monday through Friday, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. In addition, the examiner's RightFAX number is 571-273-3744.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Alexander J. Kosowski
Primary Examiner
Art Unit 2125